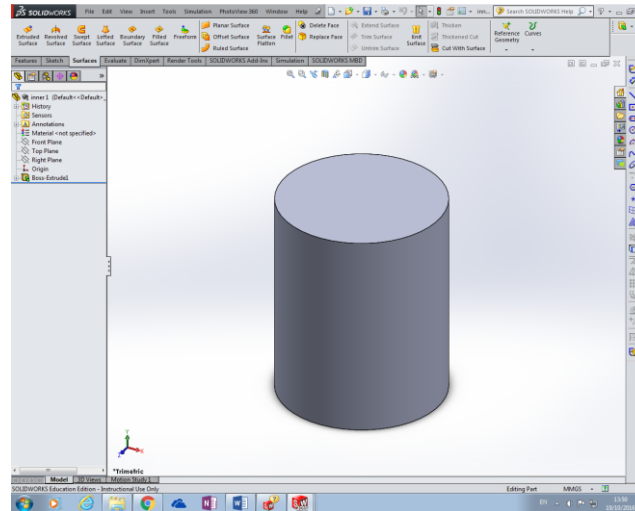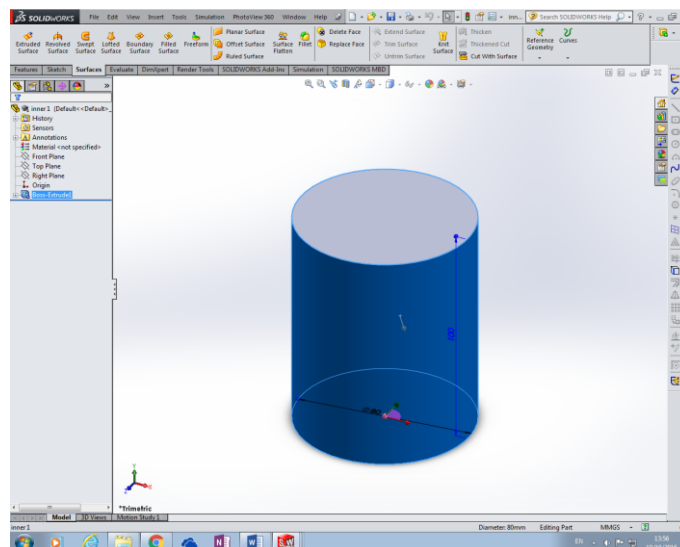# Creating layers using Surfaces (Offest, Thicken & Delete Face)

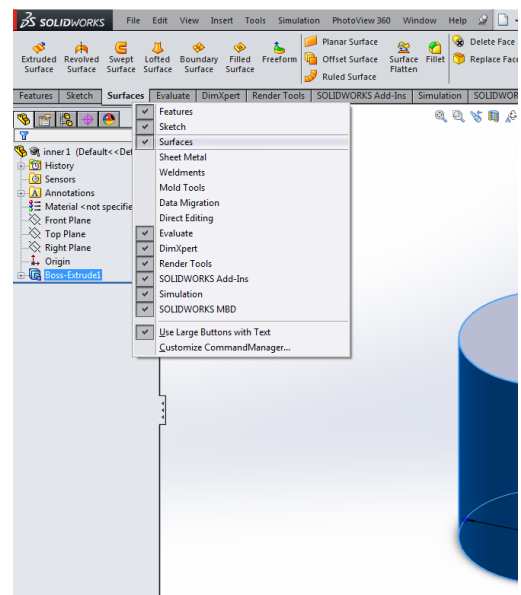

Firstly draw the inner part first…. Obviously take note of sizes….
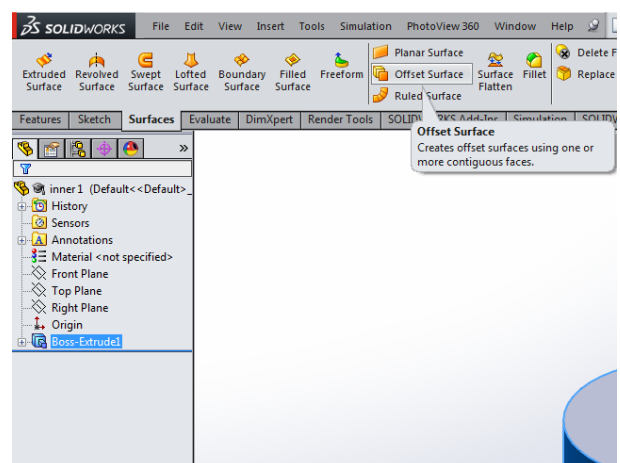
Save as inner part
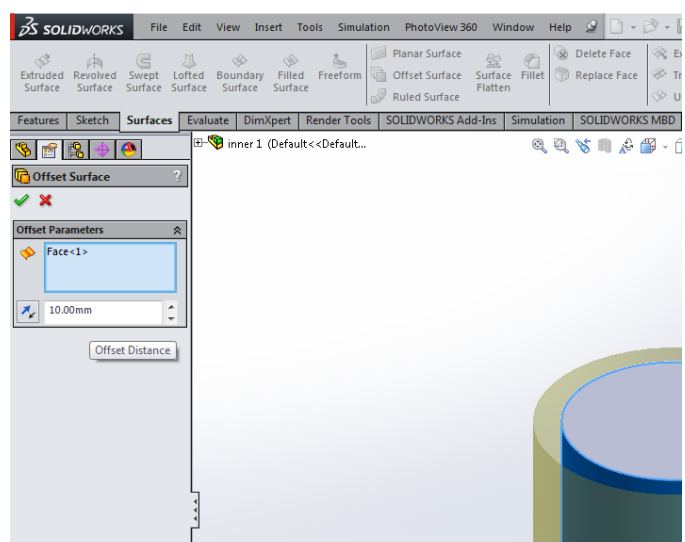
Now highlight the outside of this surface

Right click on the tabbed toolbar and ensure surface is highlighted/ticked
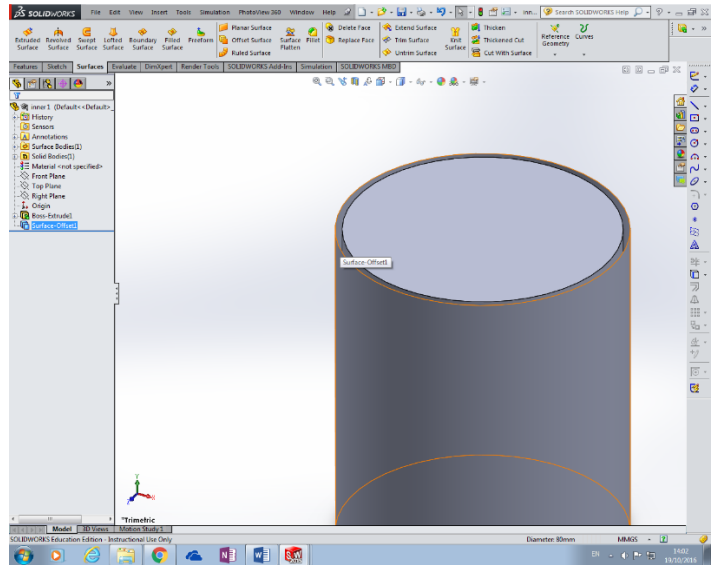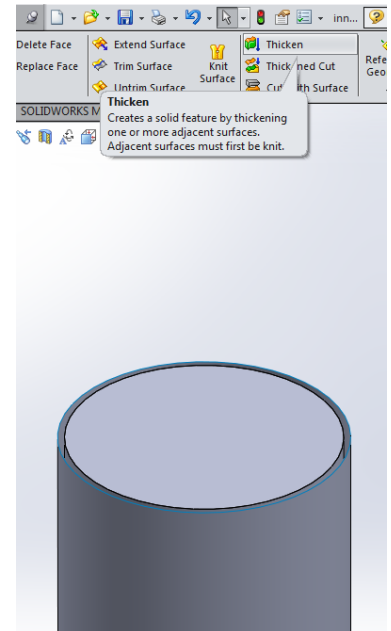
Click on offset surface

Notice face will appear just choose thickness of surface

You will notice an outside skin but it needs to be thickened

At this point you will get an option of adding a thick ness it must match up to the inner layer of previous part

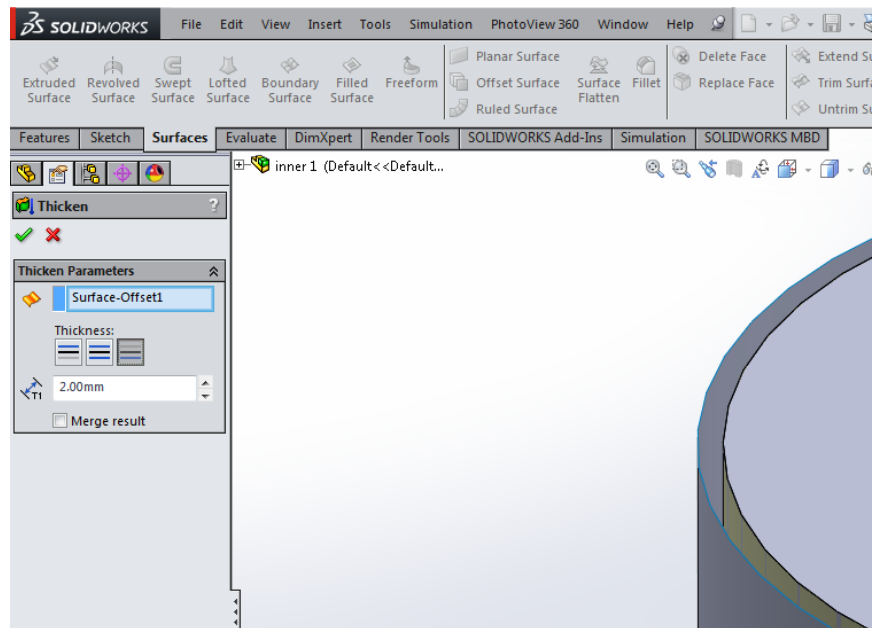You will notice 3 options of how the thicken object

1 thicken outside

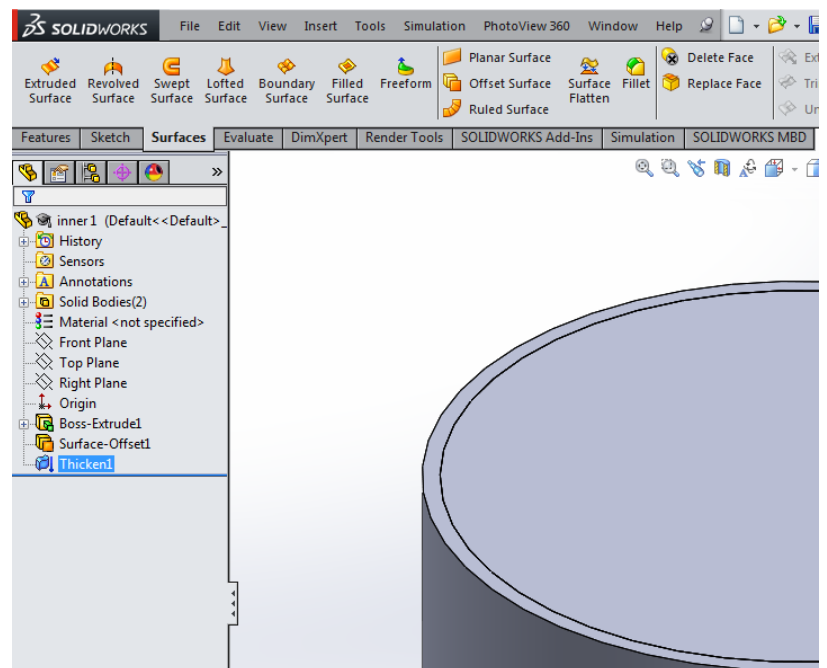2 thicken either side

3 thicken inside

You must ensure you look at yellow surface to ensure you choose correct side to thicken.
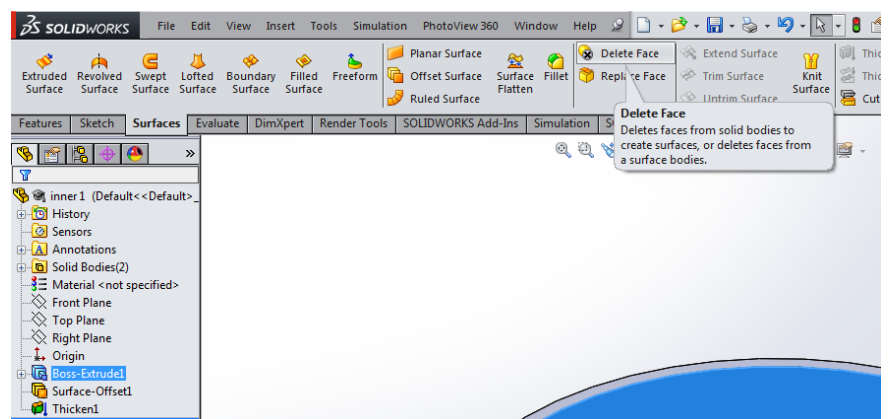
Make sure you do not thick the merge result……

You will now notice you have added a layer to previous part.

However you will need to delete previous part to be leave with outside skin only….

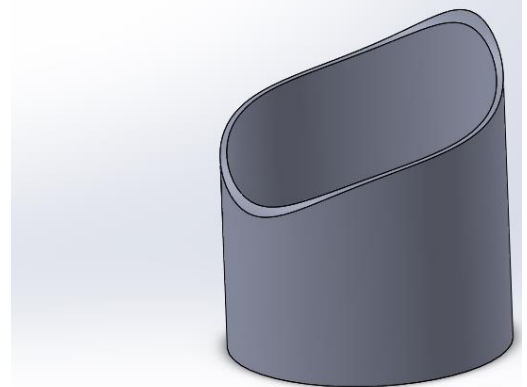To do this highlight surface you wish to delete and find Delete Face in surface toolbar….

and agree to delete….

It is crucial now to save as new Part ie Outer Shell..

This ensures both parts will have identical surfaces matching inside of one and outside of the other making it easier to mate in an assembly….
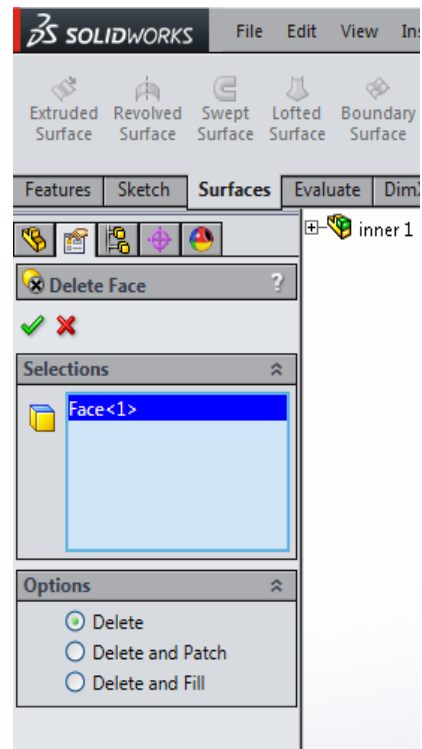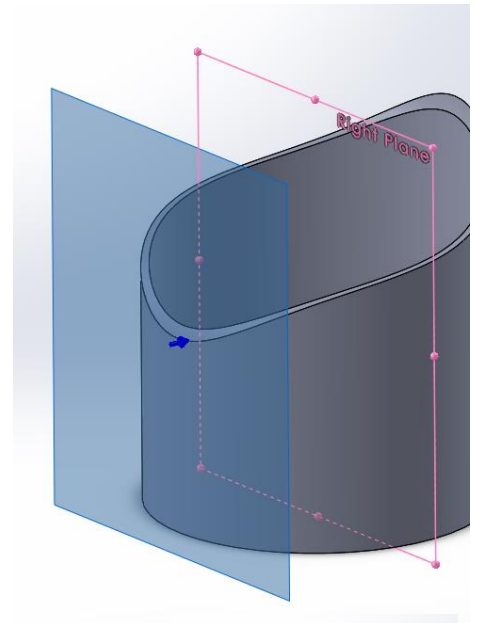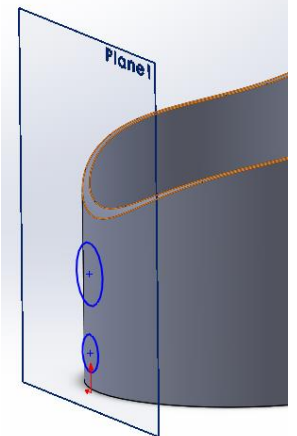
Now you can change the overall shape should you need to…

To create another layer to the object say buttons….

Create a plane where you want to see the buttons…

Then go normal to it and crete your sketch of outline of buttons…

It is important to note you must extrude the sketcg to the surface by choosing

'Up to surface' highlight the surface yourself……
you can decide to merge it if you want it to be part
of the object or untick merge if you want it to be a
stand alone part….

In this case we want it seperate
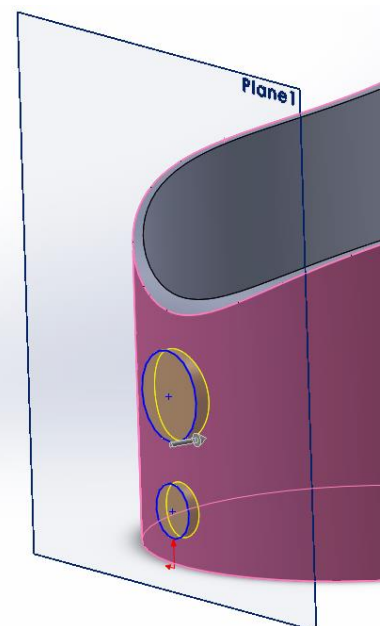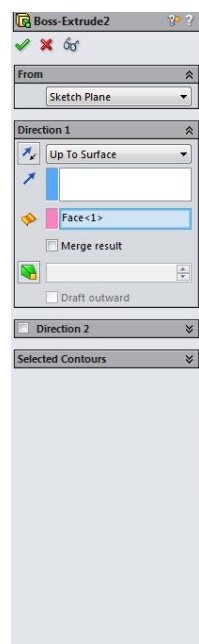
Now highlight inside face and delete face and accept…. this will effectively remove the inside skin… now remove the remaining walls…
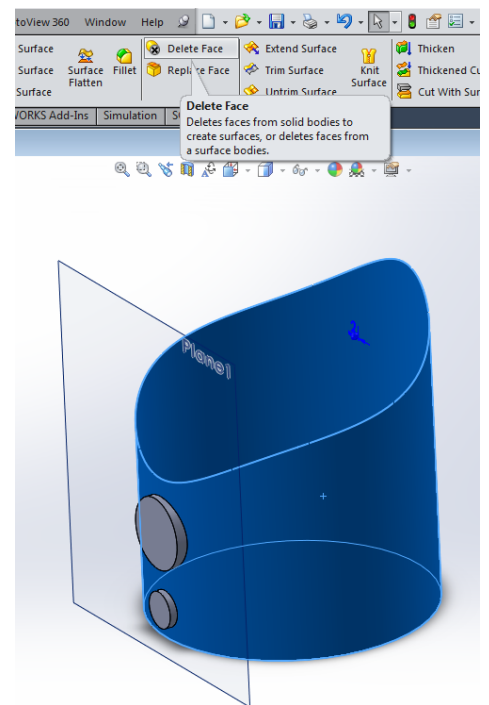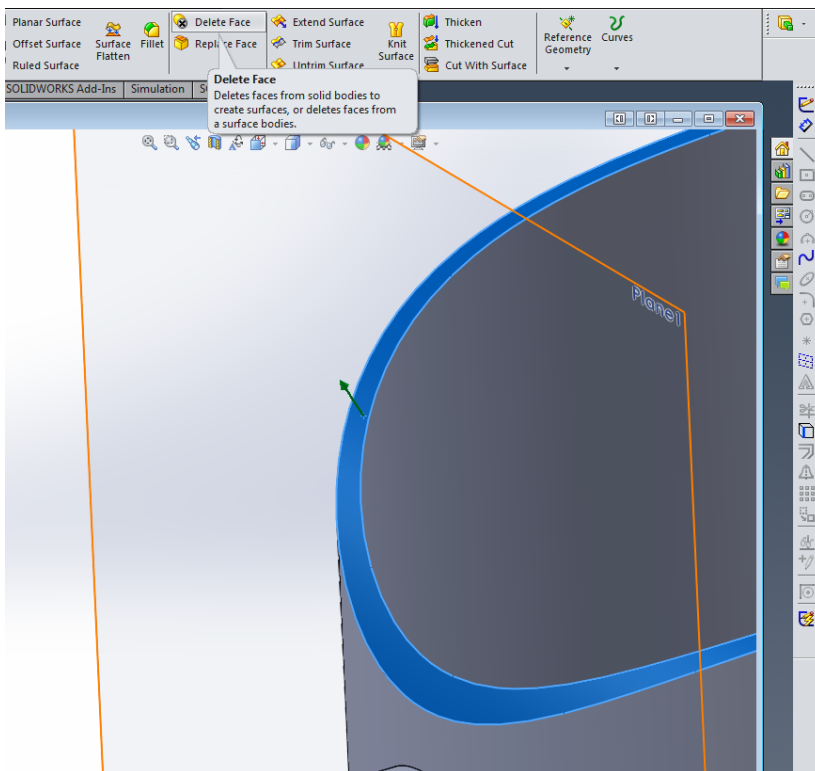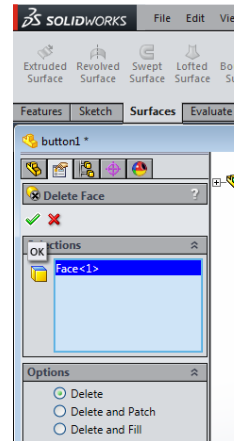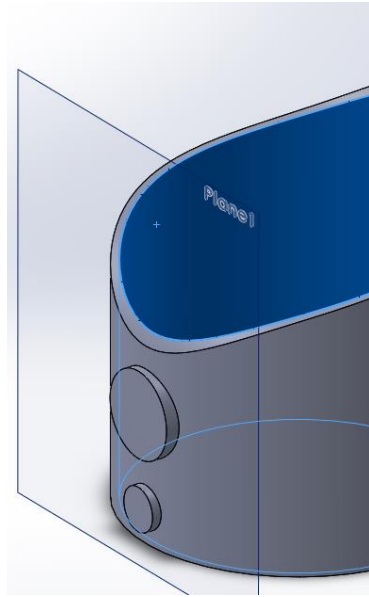

You will be left with base of the object for some reason if you delete this face using same command it causes all sorts of problems are caused to avoid this you will have to delete this using delete bodies in the features command if not there do the following to add it…..
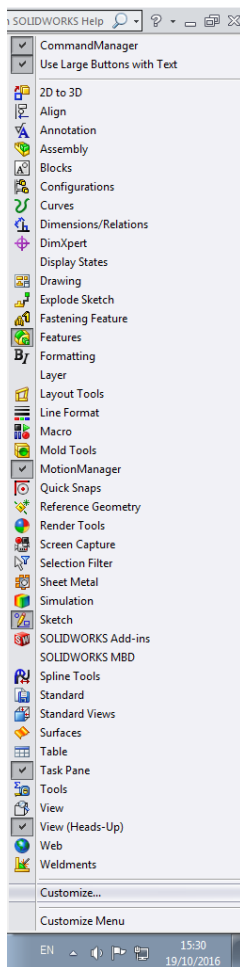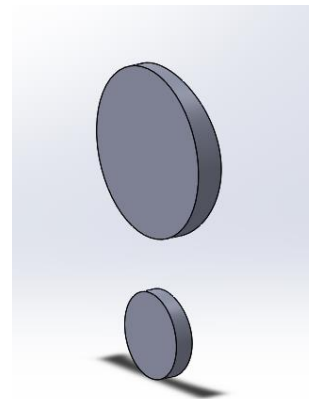
Right click on the feature command area and click on customise at the bottom…
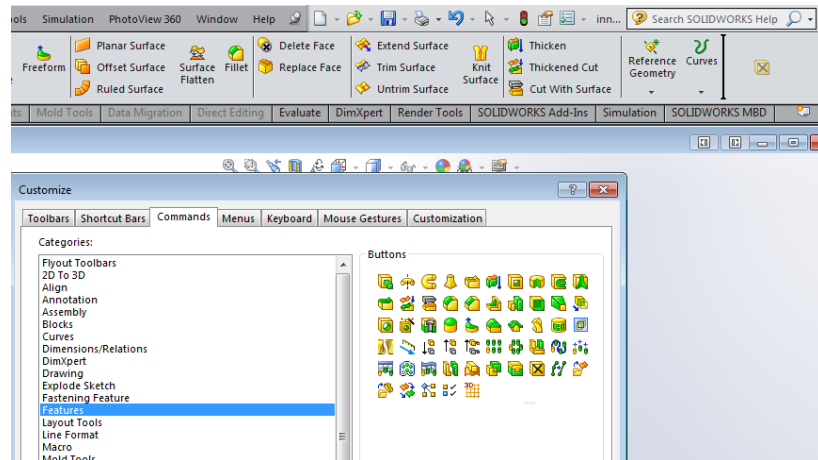
You will notice this has then been added to the toolbar
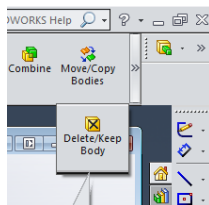
Choose the delete/keep body feature and select component left to remove….

Now you should save as Button and have a total of 3 parts which all should fit each other perfectly… this will make life much easier when it comes to assembling and easier when using mates…

Best of Luck!!!